Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

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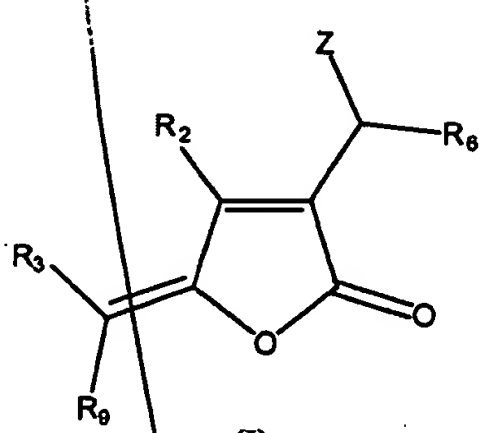
Listing of Claims:

Claim 1 (previously presented): A compound according to formula (I):



(I)

wherein R_6 is C_4-C_{25} alkyl;

R_2 and R_3 are independently or both H or halogen;

R_9 is halogen;

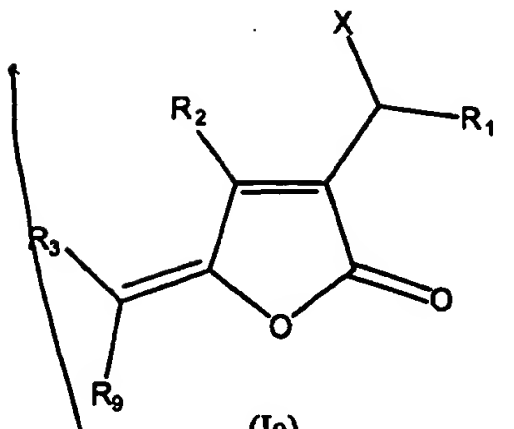
Z is independently selected from OH, alkoxy, halogen, $OC(O)R_6$, =O, amine, azide, thiol, mercaptoalkyl, alkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $SC(O)R_{10}$, $OS(O)R_{10}$, $OS(O)_2R_{10}$, $NHC(O)R_{10}$ = NR_4 or NHR_4;

R_4 is OH, alkyl, alkoxy, poly(ethylene glycol), alkenyl, aryl or arylalkyl;

R_{10} is H, OH, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

Claim 2 (previously presented): A compound according to formula (Ia):



(Ia)

wherein R_1 is C_4-C_{25} alkyl;

X is a halogen, OH, $OC(O)R_{11}$ or =O;

R_2 and R_3 are independently or both hydrogen or halogen;

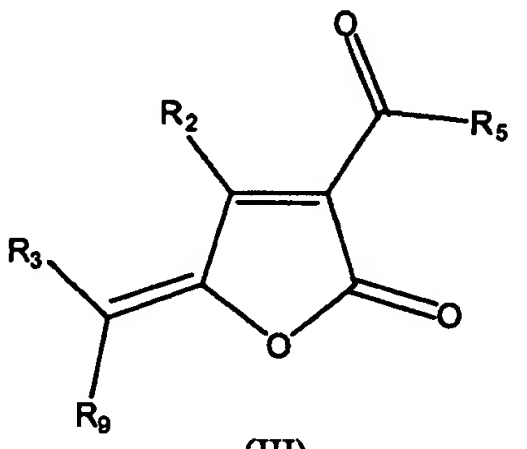
R_9 is halogen;

R_{11} is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

Claim 3 (canceled)

Claim 4 (currently amended): A compound according to formula (III):



(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH, ~~or the same as R_1~~ hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

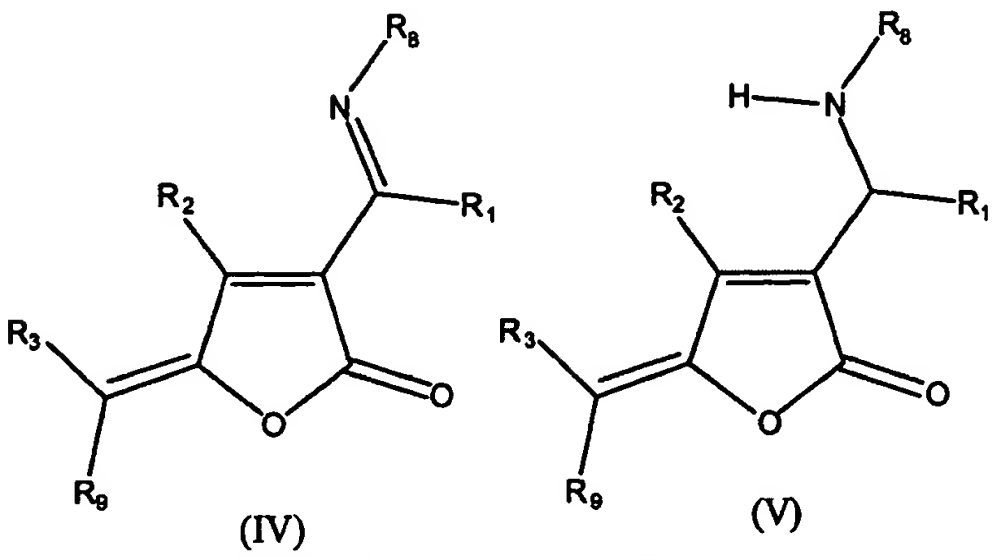
R_9 is halogen;

~~R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;~~ and

wherein each substituent can be substituted or unsubstituted, straight chain or branched

chain.

Claim 5 (currently amended): A compound according to formula (IV) or (V):



wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

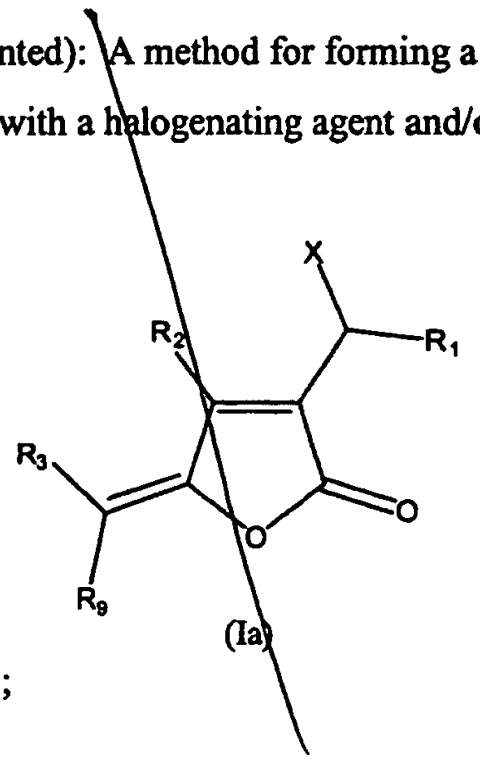
R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_8 is OH, NHR_1, $NHC(X)NH_2$, $NHC(X)NHR_1$ or R_1 where X is O, S or NR_1; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

Claim 6 (previously presented): A method for forming a compound of formula (Ia), comprising reacting a fimbrolide with a halogenating agent and/or an oxygenating agent to form the compound of formula (Ia):



wherein R_1 is C_4-C_{25} alkyl;

X is a halogen, OH, $OC(O)R_{11}$ or =O;

R_2 and R_3 are independently or both hydrogen or halogen;

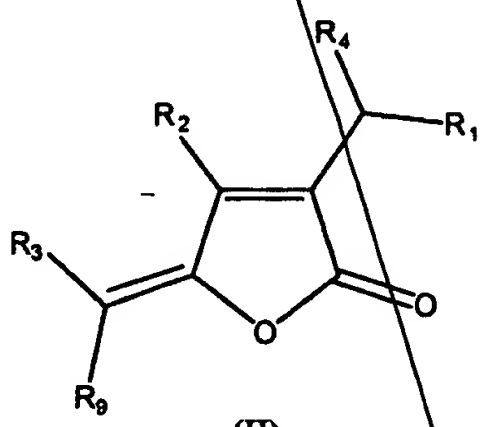
R_9 is halogen; and

R_{11} is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl.

Claim 7 (original): A method according to claim 6 wherein the halogenating agent is selected from the group N-bromosuccinimide, N-chlorosuccinimide, N-iodosuccinimide, bromine, cupric bromide, and phenyltrimethylammonium perbromide.

Claim 8 (original): A method according to claim 6 wherein the oxygenating agent is selected from lead tetraacetate, Rose Bengal/oxygen gas, hydrogen peroxide/vanadium pentoxide, selenium dioxide, and 3-chloroperoxybenzoic acid.

Claim 9 (previously presented) A method for forming a compound of formula II, comprising displacing and/or functionalizing a halogen or oxygen substituent in the side chain of a fimbrolide compound by treating the fimbrolide compound with a nucleophile or an electrophile to form the compound of formula (II):



(II)

wherein R_1 is C_4-C_{25} alkyl;

R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen; and

R_4 is selected from halogen, amine, azide, hydroxyl, thiol, alkyl, alkoxy, mercaptoalkyl, alkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $OC(O)R_{11}$, $SC(O)R_{11}$, $OS(O)R_{11}$, $OS(O)_2R_{11}$, $NHC(O)R_{11}$, $OC(O)NHR_{11}$, or =O; and

R_{11} is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

Claim 10 (original): A method according to claim 9 wherein the nucleophile is selected from metal halides, water, organic metal carboxylate, organic alcohols, dimethyl sulfoxide, and organonitrile/acid catalyst, and silver triflate.

Claim 11 (original): A method according to claim 9 wherein the electrophile is selected from organic acids, isocyanates, acid halides or active acylating agents such as carbonyl imidazoles or anhydrides (including activated hydrophilic PEG acids, PEG acid chlorides, PEG-oxycarbonylimidazoles and PEG-isocyanates) organic sulfonyl chlorides, and diethylaminosulfur trifluoride.

Claim 12 (currently amended): A method for forming a compound of formula (III), comprising reacting an hydroxyl substituent in the side chain of a fimbrolide with an oxidising agent to form the compound in accordance with formula (III):

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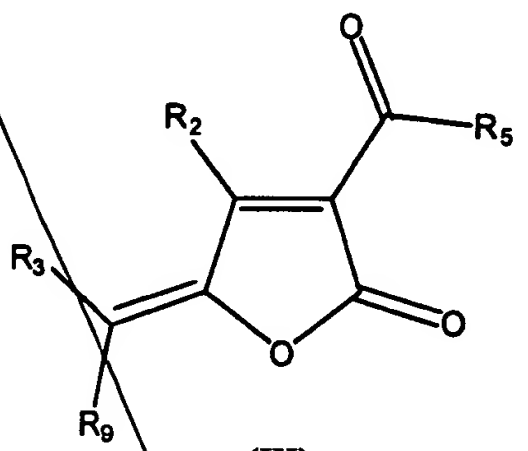


(III)

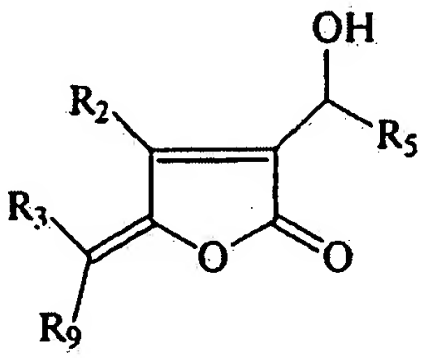
wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH, ~~or the same as R_4~~ hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

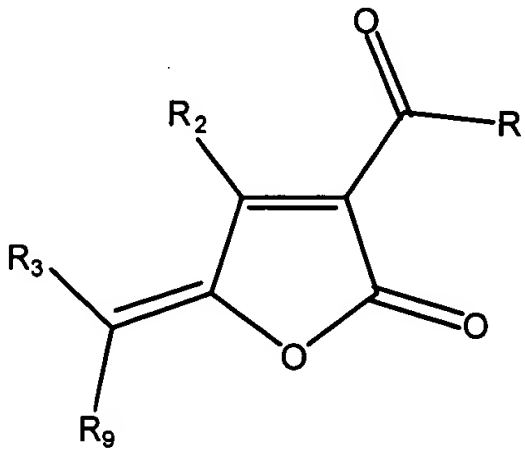
R_9 is halogen;

3

Claim ~~12~~ (currently amended): A method for forming a compound of formula (III), comprising reacting a compound of the following formula



with an oxidising agent to form the compound in accordance with formula (III):



(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH, hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

R_9 is halogen;

and wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

~~R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;~~ and

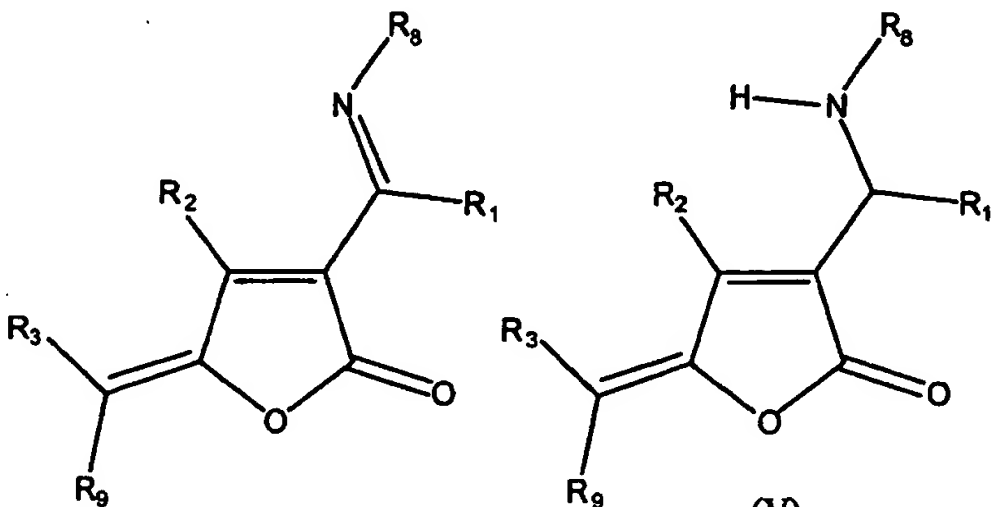
wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

4
Claim ~~13~~ (original): A method according to claim 12 wherein the oxidising agents is selected from the group consisting of acid dichromate reagents in any form which may be free or polymer supported, chromium trioxide, manganese dioxide, potassium permanganate, selenium dioxide, ceric ammonium nitrate, ruthenium tetraoxide, and hot nitric acid.

5
Claim ~~14~~ (previously presented): A method according to claim 13, wherein the acid dichromate agent is selected from the group consisting of a Jones reagent, pyridinium chlorochromate, and pyridinium dichromate.

6
Claim ~~15~~ (previously presented): A method for forming a compound of formula (IV) or (V), comprising reacting an aldehyde or ketone substituent in the side chain $-C(O)R_5$ of compound (III) with an amine to form a compound of formula (IV) or (V),

wherein formula (IV) and (V) are represented by:



wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

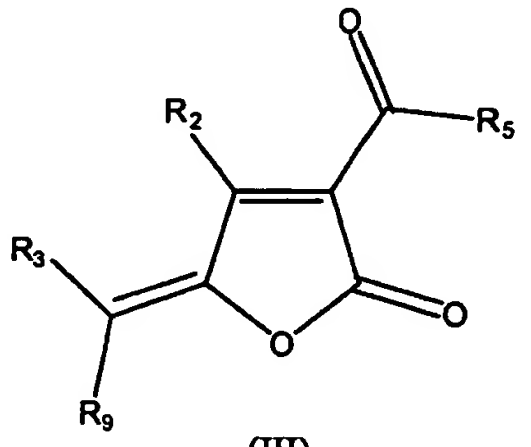
R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_8 is OH, NHR_1, $NHC(X)NH_2$, $NHC(X)NHR_1$ or R_1 where X is O, S or NR_1; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain;

and wherein formula (III) is represented by:



(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH or the same as R_1; and

R_9 is halogen.

Claim 16 (previously presented): A method according to claim 15, wherein the amine is selected from hydroxyl amine hydrochloride, alkyl and aryl hydrazines, alkyl or aryl amine, optionally in the presence of a reducing agent.

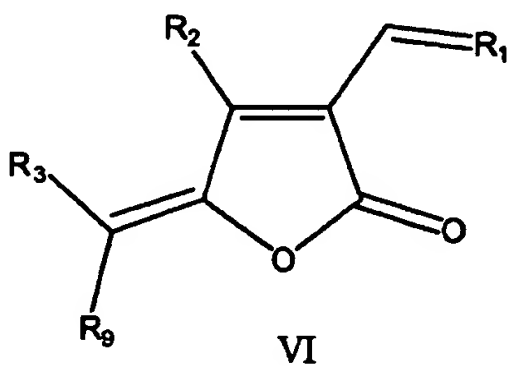
Claims 17-21 (canceled)

Claim 22 (previously presented): An antimicrobial, antiseptic and/or microbacterial static composition including at least one compound in accordance with claim 1 and a carrier with the proviso that the compound is not selected from (1'RS, 5Z)-3-(1'bromohexyl)-4-bromo-5-(bromomethylidene)-2(5H)-furanone, (1'RS) 3-(1'-bromohexyl)-5-(bromomethylidene)-2(5H)-furanone or combinations thereof.

Claim 23 (previously presented): An antifouling composition including at least one compound in accordance with claim 1 and a carrier with the proviso that the compound is not selected from (1'RS, 5Z)-3-(1'bromohexyl)-4-bromo-5-(bromomethylidene)-2(5H)-furanone, (1'RS) 3-(1'-bromohexyl)-5-(bromomethylidene)-2(5H)-furanone or combinations thereof.

Claim 24 (canceled)

Claim 25 (previously presented): A compound of formula (VI):



VI

wherein R_1 is alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

R_2 and R_3 are independently or both hydrogen or halogen;

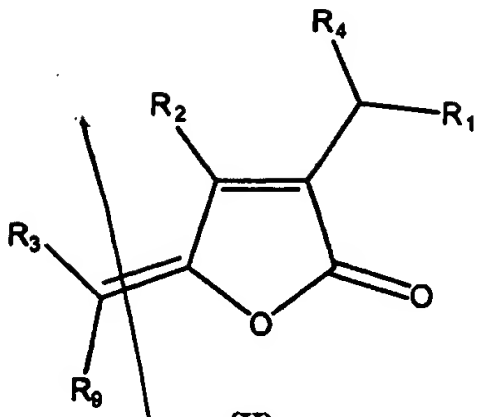
R_9 is halogen; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.

Claim 26 (original): A compound according to claim 25 which is 4-Bromo-5-(bromomethylene)-3-(1-butenyl)-2(5H)-furanone.

Claims 27-49 (canceled)

Claim 50 (previously presented): A compound according to formula (II):



(II)

wherein R_1 is C_4-C_{25} alkyl;

R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_4 is selected from halogen, amine, azide, hydroxyl, thiol, or alkyl, alkoxy, mercaptoalkylalkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $OC(O)R_{11}$, $SC(O)R_{11}$, $OS(O)R_{11}$, $OS(O)_2R_{11}$, $NHC(O)R_{11}$, $OC(O)NHR_{11}$, or =O;

R11 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl; and

wherein each substituent can be substituted or unsubstituted, straight chain or branched chain.